

27 WATER QUALITY EDUCATION

ENVIRONMENTAL EDUCATION

In 2006 the Minneapolis Park & Recreation Board (MPRB) continued to provide water quality education programs throughout the City. With stormwater education models and printed materials in hand, Environmental Operations Naturalist staff participated in 25 Minneapolis community festivals, events, and concert series at local water bodies. Hands-on water quality educational displays focused on neighborhood watersheds and how human activities impact local water bodies. Adults and children participated in "Watershed Jeopardy" and other educational games. Printed materials, bookmarks, temporary tattoos, stickers, and water bottles with educational messages were also distributed at these events.

The summer pilot program MPRB Naturalist staff created and led last year for children ages 6 to 12 was re-titled and upgraded based on staff and participant evaluations. Formerly known as Water Works, for 2006 this program was titled Sewer Rats which had an immediate appeal to boys. Thirty recreation centers¹ (twice as many as 2005) from across the city participated in this four-part, four-hour program series. By providing information in a series of programs, Naturalist staff helped children achieve a better understanding of stormwater and learn how their actions or inactions affect local water bodies (that is, the lake or creek children like to wade, swim or fish in). Sewer Rats incorporated hands-on learning activities that focus on watersheds, storm drains, pollution patrol, water quality testing, macro invertebrates, wetlands, and more. The MPRB will continue to improve and update the program series based on evaluations. Some of the participating parks also had children who created art work as part of the Earth Day poster contest. The winner's art was featured on the 2006 Earth Day poster.

The MPRB continued to provide hands-on water quality education programs at Mill Ruins Park which is located adjacent to St. Anthony Falls on the west bank of the Mississippi River. Programs targeted schools and other groups as well as the general public with specific programs for families and adults. Participants learned about the importance of the Mississippi River to the City of Minneapolis as power source, transportation corridor, recreation resource, wildlife habitat and our main source of drinking water. Based on evaluations from the 2006 programming season, content was adjusted to answer questions about the odors emanating from storm water outlets in the park and also the geese management program. As per last year's suggestions, water quality information was also incorporated into themed river programs as appropriate (such as lumbering and flour milling programs).

This year a new mobile water education kiosk developed and licensed by the Center for Global Environmental Education of Hamline University was piloted at MPRB neighborhood recreation centers. The kiosk is a stand alone computer that houses six interactive water education modules available in English, Spanish, and Hmong. The six modules are:

¹ Participating recreation centers included: Armatage, Beltrami, Bethune, Bottineau, Brackett, Burroughs School, Corcoran, Creekview, Farview, Folwell, Fuller, Harrison, Hiawatha Park School, Keeywadin, Kenwood, King, Lake Hiawatha, Linden Hills, Logan, Lynnhurst, Luxton, Matthews, McRae, Morris, Northeast, Pershing, Powderhorn, Sibley, Stewart, and Windom South.

- Journey of a Raindrop: This module follows the journey of a raindrop from the roof of an urban residence through the storm sewer system to the river. Users learn about eight common sources of non-point source pollution as well as ways to clean up these sources.
- Rappin' with Alex: In this module Alex the Frog performs in a rap video about water and water pollution.
- The Water Cycle: A visualization along with a quiz teach users about the water cycle and its various parts.
- Streets to Streams: Impervious Surfaces: An urban planner simulation lets users explore the impacts of impervious surfaces on surface waters and river water quality.
- The Water Watchers: This module profiles people who have positively impacted the quality of their local waters, showing how individuals can make a difference by working to promote clean waters.
- What's Your Watershed Address?: In this module, users learn what a watershed is as well as the fact that everyone lives in a watershed.

The number of times each kiosk is accessed is kept track of by the computer program in the kiosk. The program keeps track of the statistics for both the "lifetime" of the program, as well as for individual "sessions." The individual session can be erased if the administrator part of the program is accessed.

The first water education kiosk was installed in Linden Hills Park on June 11, 2006 where it remained until the end of August. Statistics were originally kept using the "session" numbers. Unfortunately, these numbers were erased during the week of 8/2/06 to 8/9/06, and the count was restarted from zero. Because original "lifetime" numbers were not recorded, kiosk numbers for the entire period at Linden Hills Park are not available. The protocol for recording numbers has now changed to using the "lifetime" numbers to avoid any issues with sessions being erased. The following table shows the number of times modules were accessed from 6/11/06 to 8/2/06 at Linden Hills Park recreation center.

Linden Hills Park – Modules Accessed 6/11/06 to 8/2/06

Module	English Version	Spanish Version	Total
Journey of a Raindrop	192	15	270
Rappin' With Alex	176	19	195
The Water Cycle	97	3	100
Streets to Streams	63	3	66
Water Watchers	80	6	86
Watershed Address	47	8	55
Total	655	54	709

The water education kiosk was installed in the Lynnhurst Park recreation center on 9/12/06, where it remained until 12/22/06. The following table shows the number of times modules were accessed during this time period.

Lynnhurst Park – Modules Accessed 9/12/06 to 12/22/06

Module	English Version	Spanish Version	Total
Journey of a Raindrop	249	35	284
Rappin' With Alex	253	38	291
The Water Cycle	91	12	103
Streets to Streams	118	23	141
Water Watchers	84	16	100
Watershed Address	90	19	109
Total	885	143	1028

Observation at these two test sites has shown that the kiosk needs to be moved every three to four weeks to prevent users from trying to add their own games to the computer. Based on this information, that is the timeline that will be followed in 2007.

STAFF EDUCATION

Water Quality staff educated the following MPRB staff on water quality issues, best practices, and watersheds of the park system: Naturalist staff, Mobile Equipment Operators, and Park Keepers and Gardeners through their pesticide certification training.

ANNUAL EARTH DAY WATERSHED CLEAN-UP

The annual Earth Day Watershed Clean-Up was held on Saturday, April 23, 2006. This event provided an opportunity for the MPRB and City of Minneapolis to provide information to residents regarding water quality issues and subsequently how to limit pollution from entering local lakes and streams. Over 900 Earth Day participants removed waste materials from shorelines and open space areas throughout Minneapolis' parklands. Among these parklands included the Chain of Lakes, Shingle Creek, Bassett's Creek, the Minnehaha Creek corridor, the Mississippi River corridor, Grass Lake, Lake Nokomis, Lake Hiawatha, and Powderhorn Lake. A Citywide Earth Day Education Fair sponsored by MPRB was held at Nokomis Community Center. This event included informational stations on low input lawn care, landscaping with native plants, designing a rain garden, and building a birdfeeder for kids.